CLAIMS

What is claimed is:

1. A method comprising:

    creating a virtual data storage parcel, the virtual data storage parcel including a number of virtual logical data blocks of a first size;

    creating one or more physical data storage parcels, each of the one or more physical data storage parcels including a number of physical logical data blocks of a second size; and

    mapping the virtual logical data blocks to the physical logical data storage blocks.

2. The method of claim 1 wherein a combined size of the one or more physical data storage parcels exceeds the size of the virtual data storage parcel, the method further comprising:

    storing data pertaining to the virtual data storage parcel in one or more of the physical logical data blocks.

3. The method of claim 2 wherein the data pertaining to the physical data storage parcels includes data of one or more types selected from the list consisting of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.

4. The method of claim 3 wherein each virtual logical data block includes system data as well as data pertaining to the system data of the respective virtual logical data block.

5.   The method of claim 4 wherein the data pertaining to the virtual logical data block includes data of one or more types of data selected from the list consisting of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.

6.   The method of claim 1 wherein the virtual data storage parcel includes eight virtual logical data blocks, the eight virtual logical data blocks mapped to a physical data storage parcel including nine physical logical data storage blocks.

7.   The method of claim 6 wherein the nine physical logical data blocks are 512 bytes in length.

8.   The method of claim 1 wherein the size of each virtual logical data block varies within a data storage system.

9.   The method of claim 1 further comprising:

        determining a number of physical data storage parcels based upon consideration of size overhead and performance overhead.

10.	A data storage system comprising:

a storage medium;

a processing system; and

a memory, coupled to the processing system, the memory having stored therein instructions which, when executed by the processing system, cause the processing system to a) create a virtual data storage parcel, the virtual data storage parcel including a number of virtual logical data storage blocks of a first size, b) create one or more physical data storage parcels, each of the one or more physical data storage parcels including a number of physical logical data storage blocks of a second size, and c) map the virtual logical data storage blocks to the physical logical data storage blocks.

11.	The data storage system of claim 10 wherein a combined size of the one or more physical data storage parcels exceeds the size of the virtual data storage parcel, and wherein the instructions which, when executed by the processing system, further cause the processing system to d) store data pertaining to the virtual data storage parcel in one or more of the physical logical data blocks.

12.	The data storage system of claim 10 wherein the data pertaining to the physical data storage parcels includes data of one or more types selected from the list consisting of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.

13.   The data storage system of claim 12 wherein each virtual logical data block includes system data as well as data pertaining to the system data of the respective virtual logical data block.

14.   The data storage system of claim 13 wherein the data pertaining to the virtual logical data block includes data of one or more types of data selected from the list consisting of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.

15.   The data storage system of claim 10 wherein the virtual data storage parcel includes eight virtual logical data blocks, the eight virtual logical data blocks mapped to a physical data storage parcel including nine physical logical data storage blocks.

16.   The data storage system of claim 15 wherein the nine physical logical data blocks are 512 bytes in length.

17.   The data storage system of claim 10 wherein the size of each virtual logical data block varies within the data storage system.

18.   The data storage system of claim 10 wherein the instructions which, when executed by the processing system, further cause the processing system to e) determine a number of physical data storage parcels based upon consideration of size overhead and performance overhead.

19.   A machine-readable medium containing instructions which, when executed by a processing system, cause the processing system to perform a method, the method comprising:

creating a virtual data storage parcel, the virtual data storage parcel including a number of virtual logical data storage blocks of a first size;

creating one or more physical data storage parcels, each of the one or more physical data storage parcels including a number of physical logical data storage blocks of a second size; and

mapping the virtual logical data storage blocks to the physical logical data storage blocks.

20.   The machine-readable medium of claim 19 wherein a combined size of the one or more physical data storage parcels exceeds the size of the virtual data storage parcel, the method further comprising:

storing data pertaining to the virtual data storage parcel in one or more of the physical logical data blocks.

21.   The machine-readable medium of claim 20 wherein the data pertaining to the physical data storage parcels includes data of one or more types selected from the list consisting of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.

22.   The machine-readable medium of claim 21 wherein each virtual logical data block includes system data as well as data pertaining to the system data of the respective virtual logical data block.

23.   The machine-readable medium of claim 22 wherein the data pertaining to the virtual logical data block includes data of one or more types of data selected from the list consisting of error correction code data, cyclic redundancy check data, checksum data, timestamp data and cache history data.

24.   The machine-readable medium of claim 19 wherein the virtual data storage parcel includes eight virtual logical data blocks, the eight virtual logical data blocks mapped to a physical data storage parcel including nine physical logical data storage blocks.

25.   The machine-readable medium of claim 24 wherein the nine physical logical data blocks are 512 bytes in length.

26.   The machine-readable medium of claim 19 wherein the size of each logical data block varies within a data storage system.

27.   The machine-readable medium of claim 19 wherein the method further comprises:
        determining a number of physical data storage parcels based upon consideration of size overhead and performance overhead.